

REMARKS

In response to the Office Action dated February 14, 2006, claims 2, 8-11, 13, 14, 16 and 17 are amended, and claims 5 and 12 are canceled. Claims 2, 3, 6-11 and 13-24 are now active in this application, with claims 18-24 withdrawn from consideration as being directed to a non-elected invention. No new matter has been added.

OBJECTION TO THE DRAWINGS

The Examiner objects to FIGS. 19A-19D and 20A-20D as not being labeled PRIOR ART. However, the words "PRIOR ART" appear immediately to the right of each of the legends FIG. 19A, FIG. 19B, FIG. 19C, FIG. 19D, FIG. 20A, FIG. 20B, FIG. 20C and FIG. 20C. Consequently, withdrawal of the objection to the drawings is respectfully solicited.

OBJECTION TO CLAIMS

Claims 11 and 13-17 are objected to as having minor informalities. By this response, claims 11, 13 and 14 are amended as suggested by the Examiner in the Office Action. Consequently, withdrawal of the objection to claims 11 and 13-17 is respectfully solicited.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 2-17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. It is noted that the Examiner incorrectly included cancelled claim 4 in this rejection.

The Examiner has a number of objections. To address the objections, claims 5 and 12 have been cancelled, and claims 2, 8, 9, 10, 11, 13, 14, 16 and 17 have been amended to recite

the invention with the degree of precision and particularity required by the statute. Consequently, withdrawal of the rejection of claims 2-11 and 13-17 under 35 U.S.C. § 112, second paragraph, is respectfully solicited.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

Claims 2, 3, 5-7 and 11-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nakamura (USPN 5,923,701).

The rejection is moot as to cancelled claims 5 and 12. Claims 2, 11 and 13 have been amended to clearly distinguish over Nakamura.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention such that the identically claimed invention is placed into possession of one having ordinary skill in the art. *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 200 U.S. App. LEXIS 6300, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994).

According to the invention of the present application, data is represented not only during the “period from a code 1 to a code 2” but also during the “period from code 2 to code 1,” the “period from code 1 to code 1,” and the “period from code 2 to code 2” (see page 34, line 30 to page 35, line 3 of the specification and Fig. 13). Thus, claim 2 has been amended to delineate, *inter alia*:

data to be transmitted is represented by each of the first specific sequences as well as by the time interval between an immediately preceding first specific sequence and a next first specific sequence, and

when the immediately preceding first specific sequence is one of a first sequence and a second sequence, and the next first specific sequence is one of the first sequence and the second sequence, data to be transmitted is represented by the time interval between any of the first sequence followed by the second sequence, the second sequence followed by the first sequence, the first sequence followed by the first sequence, and the second sequence followed by the second sequence.

In addition, each of independent claims 2, 11, 13 and 14 have been amended to delineate that one communication path is used.

The invention of the present application is different from Nakamura in how to express the data after modulation:

(1) Though both the invention of the present application and Nakamura disclose modulating/demodulating the data value using the time interval between the codes, they are different in a position used as the reference in determining the interval.

According to the invention of the present application, the data value is always represented in the time interval between the immediately preceding code and the next code, (see amended independent claim 2). On the other hand, according to Nakamura, the data value is represented in the time interval between the beginning of the frame cycle or the fixed position apart from the beginning and the code.

(2) The invention of the present application is different from Nakamura in the use where a specific code and an inverted code thereof are applied as two codes to be used.

According to the invention of the present application, the following two application methods are described in the embodiment (see page 34, line 30 to page 35, line 3 of the specification). That is, one communication path is used, (see amended independent claims 2, 11,

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13 and 14) and which code has been detected in addition to the time interval is represented as 1-bit information.

In contrast, according to Nakamura, two codes form an independent communication path, which is used for multiplexing.

(3) An example in which coding for representing four values of 00, 01, 10, and 11 is carried out by applying the invention of the present application and Nakamura is shown in the attached reference diagram. This reference diagram shows an example in which 11, 10, 01 and 00 are transmitted. Herein, codes to be used are represented as A and B, and the code length is set to 4 slots.

In the example employing the invention of the present application, modulation/demodulation is carried out in accordance with the following allotment. For the higher-order bit, code A is used for 1 and code B is used for 0. For the lower-order bit, as the interval between codes, 1 slot is selected for 1 and 0 slot is selected for 0.

In the example employing Nakamura, modulation/demodulation is carried out in accordance with the following allotment. Here, it is assumed that $M=1$, $N=1$, $L=5$, and $j=0$. For the higher-order bit, code A is arranged 1 slot and 0 slot away from the beginning of the frame in the cases of 1 and 0, respectively. For the lower-order bit, code B is arranged 1 slot and 0 slot away from the position advanced by 1 slot ($M=1$) from the beginning of the frame in the cases of 1 and 0, respectively.

In view of the above, amended independent claims 2, 11, 13 and 14, as well as dependent claims 3, 6-10 and 15-17, are patentable over Nakamura and their allowance is respectfully solicited.

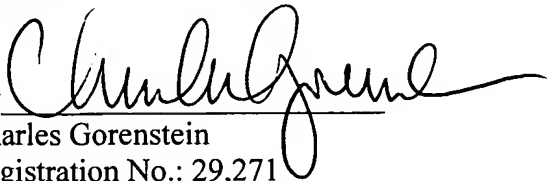
CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachment: Reference Diagram



Reference Diagram

